



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Nigel R.A. BEELEY *et al.*

Serial No.: 09/003,869

Filing Date: January 7, 1998

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Art Unit: 1653

Atty. Docket: 18528.032

For: Use of Exendins for the Reduction of Food Intake

Statement Regarding Sequence Submission

Mail Stop Sequence
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with 37 C.F.R. § 1.821(f), the computer readable form (CRF) on floppy diskette and the paper copy of the Sequence Listing submitted herewith in the above-mentioned application are the same.

Respectfully submitted,

Thomas E. Holsten (Reg. No. 46,098)
David R. Marsh (Reg. No. 41,408)

Date: October 21, 2004

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<110> BEELEY, NIGEL ROBERT ARNOLD
PRICKETT, KATHRYN S.
BHAVSAR, SUNIL

<120> USE OF EXENDINS AND AGONISTS THEREOF FOR
THE REDUCTION OF FOOD INTAKE

<130> 231/181

<140> US 09/003,869

<141> 1998-01-07

<150> US 60/034,905

<151> 1997-01-07

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<150> US 60/065,442

<151> 1997-11-14

<150> US 60/066,029

<151> 1997-11-14

<160> 188

<170> FastSEQ for windows Version 3.0

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<211> 39

<212> PRT

<213> Heloderma horridum

<220>

<221> AMIDATION

<222> (39)...(39)

<223> amidated Ser (Serinamide)

<400> 1

His Ser Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 2

<211> 39

<212> PRT

<213> Heloderma suspectum

<220>

<221> AMIDATION

<222> (39)...(39)

<223> amidated Ser (Serinamide)

<400> 2

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 3

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> VARIANT

<222> (1)...(8)

<223> Xaa in position 1 is His, Arg or Tyr; Xaa in position 2 is Ser, Gly, Ala or Thr; Xaa in position 3 is Asp or Glu; Xaa in position 6 is Phe, Tyr or naphthylalanine; Xaa in position 7 is Thr or Ser; Xaa in position 8 is Ser or Thr;

<220>

<221> VARIANT

<222> (9)...(22)

<223> Xaa in position 9 is Asp or Glu; Xaa in position 10 is Leu, Ile, Val, pentylglycine or Met; Xaa in position 14 is Leu, Ile, pentylglycine, Val or Met; Xaa in position 22 is Phe, Tyr or naphthylalanine;

<220>

<221> VARIANT

<222> (23)...(25)

<223> Xaa in position 23 is Ile, Val, Leu, pentylglycine, tert-butylglycine or Met; Xaa in position 24 is Glu or Asp; Xaa in position 25 is Trp, Phe, Tyr, or naphthylalanine;

<220>

<221> VARIANT

<222> (31)...(39)

<223> Xaa in positions 31, 36, 37 and 38 are independently Pro, homoproline, 3-hydroxyproline, 4-hydroxyproline, thioproline, N-alkylglycine, N-alkylpentylglycine or N-alkylalanine; Xaa in position 39 is Ser, Thr or Tyr;

<220>

<221> VARIANT

<222> (1)...(39)

<223> with the proviso that the compound is not exendin-3 or exendin-4.

<220>

<221> AMIDATION

<222> (39)...(39)

<223> The terminal amino acid may or may not be amidated.

<400> 3

Xaa Xaa Xaa Gly Thr Xaa Xaa Xaa Xaa Xaa Ser Lys Gln Xaa Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Xaa Xaa Xaa Xaa Leu Lys Asn Gly Gly Xaa Ser
20 25 30

Ser Gly Ala Xaa Xaa Xaa Xaa
35

<210> 4

<211> 38

<212> PRT

<213> Artificial Sequence

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<220>

<221> VARIANT

<222> (1)...(7)

<223> Xaa in position 1 is His, Arg or Tyr; Xaa in position 2 is Ser, Gly, Ala or Thr; Xaa in position 3 is Asp or Glu; Xaa in position 5 is Ala or Thr; Xaa in position 6 is Ala, Phe, Tyr or naphthylalanine; Xaa in position 7 is Thr or Ser;

<220>

<221> VARIANT

<222> (8)...(13)

<223> Xaa in position 8 is Ala, Ser or Thr; Xaa in position 9 is Asp or Glu; Xaa in position 10 is Ala, Leu, Ile, Val, pentylglycine or Met; Xaa in position 11 is Ala or Ser; Xaa in position 12 is Ala or Lys; Xaa in position 13 is Ala or Gln;

<220>

<221> VARIANT

<222> (14)...(20)

<223> Xaa in position 14 is Ala, Leu, Ile, pentylglycine, Val or Met; Xaa in position 15 is Ala or Glu; Xaa in position 16 is Ala or Glu; Xaa in position 17 is Ala or Glu; Xaa in position 19 is Ala or Val; Xaa in position 20 is Ala or Arg;

<220>

<221> VARIANT

<222> (21)...(24)

<223> Xaa in position 21 is Ala or Leu; Xaa in position 22 is Ala, Phe, Tyr or naphthylalanine; Xaa in position 23 is Ile, Val, Leu, pentylglycine, tert-butylglycine or Met; Xaa in position 24 is Ala, Glu or Asp;

<220>

<221> VARIANT
 <222> (25)...(27)
 <223> Xaa in position 25 is Ala, Trp, Phe, Tyr or naphthylalanine;
 Xaa in position 26 is Ala or Leu; Xaa in position 27 is Ala
 or Lys;

<220>
 <221> VARIANT
 <222> (28)...(28)
 <223> Xaa in position 28 is Ala or Asn;

<220>
 <221> VARIANT
 <222> (29)...(30)
 <223> Xaa in position 29 is Gly or amino acid is missing;
 Xaa in position 30 is Gly or amino acid is missing;

<220>
 <221> VARIANT
 <222> (31)...(32)
 <223> Xaa in position 31 is Pro, homoproline, 3Hyp, 4Hyp,
 thioproline, N-alkylglycine, N-alkylpentylglycine,
 N-alkylalanine, or amino acid is missing; Xaa in position
 32 is Ser or amino acid is missing;

<220>
 <221> VARIANT
 <222> (33)...(35)
 <223> Xaa in position 33 is Ser or amino acid is missing;
 Xaa in position 34 is Gly or amino acid is missing;
 Xaa in position 35 is Ala or amino acid is missing;

<220>
 <221> VARIANT
 <222> (36)...(36)
 <223> Xaa in position 36 is Pro, homoproline, 3Hyp, 4Hyp,
 thioproline, N-alkylglycine, N-alkylpentylglycine,
 N-alkylalanine, or amino acid is missing;

<220>
 <221> VARIANT
 <222> (37)...(37)
 <223> Xaa in position 37 is Pro, homoproline, 3Hyp, 4Hyp,
 thioproline, N-alkylglycine, N-alkylpentylglycine,
 N-alkylalanine, or amino acid is missing;

<220>
 <221> VARIANT
 <222> (38)...(38)
 <223> Xaa in position 38 is Pro, homoproline, 3Hyp, 4Hyp,
 thioproline, N-alkylglycine, N-alkylpentylglycine,
 N-alkylalanine, or amino acid is missing;

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> when Xaa in position 28 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> AMIDATION
 <222> (29)...(29)
 <223> when Gly in position 29 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> AMIDATION
 <222> (30)...(30)
 <223> when Gly in position 30 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> AMIDATION
 <222> (31)...(31)
 <223> when Xaa in position 31 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> AMIDATION
 <222> (32)...(32)
 <223> when Ser in position 32 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> AMIDATION
 <222> (33)...(33)
 <223> when Ser in position 33 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> AMIDATION
 <222> (34)...(34)
 <223> when Gly in position 34 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> AMIDATION
 <222> (35)...(35)
 <223> when Ala in position 35 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> AMIDATION
 <222> (36)...(36)
 <223> when Xaa in position 36 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> AMIDATION
 <222> (37)...(37)
 <223> when Xaa in position 37 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>

<221> AMIDATION
 <222> (38)...(38)
 <223> when Xaa in position 38 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> VARIANT
 <222> (5)...(28)
 <223> provided that no more than three of Xaa in positions 5, 6,
 8, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 24, 25, 26,
 27 and 28 are Ala.

<400> 4

Xaa Xaa Xaa Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1 5 10 15
 Xaa Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20 25 30
 Xaa Xaa Xaa Xaa Xaa Xaa
 35

<210> 5
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist
 compound

<220>
 <221> VARIANT
 <222> (1)...(5)
 <223> Xaa in position 1 is His, Arg, Tyr, Ala, Norval, Val or
 Norleu; Xaa in position 2 is Ser, Gly, Ala or Thr; Xaa in
 position 3 is Ala, Asp or Glu; Xaa in position 4 is Ala, Norval,
 Val, Norleu or Gly; Xaa in position 5 is Ala or Thr;

<220>
 <221> VARIANT
 <222> (6)...(10)
 <223> Xaa in position 6 is Phe, Tyr or naphthylalanine; Xaa in
 position 7 is Thr or Ser; Xaa in position 8 is Ala, Ser or Thr;
 Xaa in position 9 is Ala, Norval, Val, Norleu, Asp or Glu;
 Xaa in position 10 is Ala, Leu, Ile, Val, pentylglycine or Met;

<220>
 <221> VARIANT
 <222> (11)...(16)
 <223> Xaa in position 11 is Ala or Ser; Xaa in position 12 is Ala or
 Lys; Xaa in position 13 is Ala or Gln; Xaa in position 14 is Ala,
 Leu, Ile, pentylglycine, Val or Met; Xaa in position 15 is Ala
 or Glu; Xaa in position 16 is Ala or Glu;

<220>

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<221> VARIANT
<222> (17)...(22)
<223> Xaa in position 17 is Ala or Glu; Xaa in position 19 is Ala or
      Val; Xaa in position 20 is Ala or Arg; Xaa in position 21 is
      Ala or Leu; Xaa in position 22 is Phe, Tyr or naphthylalanine;

<220>
<221> VARIANT
<222> (23)...(26)
<223> Xaa in position 23 is Ile, Val, Leu, pentylglycine, tert-
      butylglycine or Met; Xaa in position 24 is is Ala, Glu or Asp;
      Xaa in position 25 is Ala, Trp, Phe, Tyr or naphthylalanine;
      Xaa in position 26 is Ala or Leu;

<220>
<221> VARIANT
<222> (27)...(28)
<223> Xaa in position 27 is Ala or Lys; Xaa in position 28 is Ala or
      Asn;

<220>
<221> VARIANT
<222> (29)...(30)
<223> Xaa in position 29 is Gly or amino acid is missing;
      Xaa in position 30 is Gly or amino acid is missing;

<220>
<221> VARIANT
<222> (31)...(32)
<223> Xaa in position 31 is Pro, homoproline, 3Hyp, 4Hyp,
      thioproline, N-alkylglycine, N-alkylpentylglycine,
      N-alkylalanine, or amino acid is missing; Xaa in position
      32 is Ser or amino acid is missing;

<220>
<221> VARIANT
<222> (33)...(35)
<223> Xaa in position 33 is Ser or amino acid is missing;
      Xaa in position 34 is Gly or amino acid is missing;
      Xaa in position 35 is Ala or amino acid is missing;

<220>
<221> VARIANT
<222> (36)...(36)
<223> Xaa in position 36 is Pro, homoproline, 3Hyp, 4Hyp,
      thioproline, N-alkylglycine, N-alkylpentylglycine,
      N-alkylalanine, or amino acid is missing;

<220>
<221> VARIANT
<222> (37)...(37)
<223> Xaa in position 37 is Pro, homoproline, 3Hyp, 4Hyp,
      thioproline, N-alkylglycine, N-alkylpentylglycine,
      N-alkylalanine, or amino acid is missing;

<220>
<221> VARIANT
<222> (38)...(38)
<223> Xaa in position 38 is Pro, homoproline, 3Hyp, 4Hyp,
      thioproline, N-alkylglycine, N-alkylpentylglycine,
      N-alkylalanine, or amino acid is missing;

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<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> When Xaa in position 28 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> AMIDATION
 <222> (29)...(29)
 <223> When Gly in position 29 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> AMIDATION
 <222> (30)...(30)
 <223> When Gly in position 30 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> AMIDATION
 <222> (31)...(31)
 <223> When Xaa in position 31 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> AMIDATION
 <222> (32)...(32)
 <223> When Ser in position 32 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> AMIDATION
 <222> (33)...(33)
 <223> When Ser in position 33 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> AMIDATION
 <222> (34)...(34)
 <223> When Gly in position 34 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> AMIDATION
 <222> (35)...(35)
 <223> When Ala in position 35 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> AMIDATION
 <222> (36)...(36)
 <223> When Xaa in position 36 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> AMIDATION
 <222> (37)...(37)
 <223> When Xaa in position 37 is terminal amino acid in sequence,
 terminal amino acid may or may not be amidated;

<220>
 <221> AMIDATION
 <222> (38)...(38)

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<223> when Xaa in position 38 is terminal amino acid in sequence,
terminal amino acid may or may not be amidated;

<220>

<221> AMIDATION

<222> (39)...(39)

<223> when Xaa in position 39 is terminal amino acid in sequence,
terminal amino acid may or may not be amidated;

<220>

<221> VARIANT

<222> (3)...(28)

<223> provided that no more than three of Xaa in positions 3, 4, 5,
8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 24, 25, 26
27 and 28 are Ala;

<220>

<221> VARIANT

<222> (1)...(9)

<223> and provided also that, if Xaa in position 1 is His, Arg or Tyr,
then at least one of Xaa in positions 3, 4 and 9 is Ala.

<400> 5

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5 10 15

Xaa Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa
35

<210> 6

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist
compound

<220>

<221> AMIDATION

<222> (30)...(30)

<223> amidated Gly (Glycinamide)

<400> 6

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly
20 25 30

<210> 7

<211> 30

<212> PRT

<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (30)...(30)
<223> amidated Gly (Glycinamide)

<400> 7

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly
20 25 30

<210> 8
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 8

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Ala Ile Glu Phe Leu Lys Asn
20 25

<210> 9
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (39)...(39)
<223> amidated Ser (Serinamide)

<400> 9

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
Page 10

20

Ser Gly Ala Pro Pro Pro Ser
35

<210> 10
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (39)...(39)
<223> amidated Ser (Serinamide)

<400> 10

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 11
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<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (39)...(39)
<223> amidated Ser (Serinamide)

<400> 11

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 12

<211> 39
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 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (39)...(39)
 <223> amidated Ser (Serinamide)

<400> 12

Tyr Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser
 35

<210> 13
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 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
 <221> AMIDATION
 <222> (39)...(39)
 <223> amidated Tyr (Tyrosinamide)

<400> 13

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Tyr
 35

<210> 14
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>

<221> AMIDATION
<222> (39)...(39)
<223> amidated Ser- (Serinamide)

<400> 14

His	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser
			20					25					30		
Ser	Gly	Ala	Pro	Pro	Pro	Ser									
		35													

<210> 15
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<223> Xaa in position 6 stands for naphthylalanine.

<220>
<221> AMIDATION
<222> (39)...(39)
<223> amidated Ser (Serinamide)

<400> 15

His	Gly	Glu	Gly	Thr	Xaa	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser
			20					25					30		
Ser	Gly	Ala	Pro	Pro	Pro	Ser									
		35													

<210> 16
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (39)...(39)
<223> amidated Ser (Serinamide)

<400> 16

His Gly Glu Gly Thr Phe Ser Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser
 35

<210> 17

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (39)...(39)

<223> amidated Ser (Serinamide)

<400> 17

His Gly Glu Gly Thr Phe Ser Thr Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser
 35

<210> 18

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (39)...(39)

<223> amidated Ser (Serinamide)

<400> 18

His Gly Glu Gly Thr Phe Thr Thr Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 19
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<213> Artificial Sequence

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<220>
<221> AMIDATION
<222> (39)...(39)
<223> amidated Ser (Serinamide)

<400> 19

His Gly Glu Gly Thr Phe Thr Ser Glu Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 20
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<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<223> xaa in position 10 stands for pentylglycine.

<220>
<221> AMIDATION
<222> (39)...(39)
<223> amidated Ser (Serinamide)

<400> 20

His Gly Glu Gly Thr Phe Thr Ser Asp Xaa Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 21

<211> 39
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 <223> artificially synthesized sequence of novel exendin agonist compound

 <220>
 <223> Xaa in position 10 stands for pentylglycine.

 <220>
 <221> AMIDATION
 <222> (39)...(39)
 <223> amidated Ser (Serinamide)

 <400> 21

His Gly Glu Gly Thr Phe Thr Ser Asp Xaa Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser
 35

<210> 22
 <211> 39
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> artificially synthesized sequence of novel exendin agonist compound

 <220>
 <223> Xaa in position 14 stands for pentylglycine.

 <220>
 <221> AMIDATION
 <222> (39)...(39)
 <223> amidated Ser (Serinamide)

 <400> 22

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Xaa Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser
 35

<210> 23
 <211> 39
 <212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<223> xaa in position 14 stands for pentylglycine.

<220>

<221> AMIDATION

<222> (39)...(39)

<223> amidated Ser (Serinamide)

<400> 23

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Xaa Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 24

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<223> xaa in position 22 stands for naphthylalanine.

<220>

<221> AMIDATION

<222> (39)...(39)

<223> amidated Ser (Serinamide)

<400> 24

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Xaa Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 25

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (39)...(39)

<223> amidated Ser (Serinamide)

<400> 25

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His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1           5           10           15
Glu Ala Val Arg Leu Phe Val Glu Trp Leu Lys Asn Gly Gly Pro Ser
          20           25           30
Ser Gly Ala Pro Pro Pro Ser
          35

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<210> 26

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (39)...(39)

<223> amidated Ser (Serinamide)

<400> 26

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His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1           5           10           15
Glu Ala Val Arg Leu Phe Val Glu Phe Leu Lys Asn Gly Gly Pro Ser
          20           25           30
Ser Gly Ala Pro Pro Pro Ser
          35

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<210> 27

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<223> Xaa in position 23 stands for tertiary-butylglycine.

<220>
 <221> AMIDATION
 <222> (39)...(39)
 <223> amidated Ser (Serinamide)

<400> 27

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Xaa Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser
 35

<210> 28
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <223> Xaa in position 23 stands for tertiary-butylglycine.

<220>
 <221> AMIDATION
 <222> (39)...(39)
 <223> amidated Ser (Serinamide)

<400> 28

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Xaa Glu Phe Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser
 35

<210> 29
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (39)...(39)
 <223> amidated Ser (Serinamide)

<400> 29

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His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Asp Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser
 35

<210> 30
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (39)...(39)
 <223> amidated Ser (Serinamide)

<400> 30

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser
 35

<210> 31
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
 <223> Xaa in positions 31, 36, 37 and 38 stands for thioproline.

<220>
 <221> AMIDATION
 <222> (39)...(39)
 <223> amidated Ser (Serinamide)

<400> 31

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser
 20 25 30

Ser Gly Ala Xaa Xaa Xaa Ser
 35

<210> 32
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <223> Xaa in positions 36, 37 and 38 stands for thioproline.

<220>
 <221> AMIDATION
 <222> (39)...(39)
 <223> amidated Ser (Serinamide)

<400> 32

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Xaa Xaa Xaa Ser
 35

<210> 33
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <223> Xaa in positions 31, 36, 37 and 38 stands for homoproline.

<220>
 <221> AMIDATION
 <222> (39)...(39)
 <223> amidated Ser (Serinamide)

<400> 33

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser
 20 25 30

Ser Gly Ala Xaa Xaa Xaa Ser
35

<210> 34
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<223> Xaa in positions 36, 37 and 38 stands for homoproline.

<220>
<221> AMIDATION
<222> (39)...(39)
<223> amidated Ser (Serinamide)

<400> 34

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Xaa Xaa Xaa Ser
35

<210> 35
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<223> Xaa in positions 31, 36, 37 and 38 stands for thioproline.

<220>
<221> AMIDATION
<222> (39)...(39)
<223> amidated Ser (Serinamide)

<400> 35

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Xaa Ser
20 25 30

Ser Gly Ala Xaa Xaa Xaa Ser

35

<210> 36
 <211> 39
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> artificially synthesized sequence of novel exendin agonist compound

 <220>
 <223> xaa in positions 31, 36, 37 and 38 stands for homoproline.

 <220>
 <221> AMIDATION
 <222> (39)...(39)
 <223> amidated Ser (Serinamide)

 <400> 36

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Xaa	Ser
			20					25					30		
Ser	Gly	Ala	Xaa	Xaa	Xaa	Xaa	Ser								
		35													

<210> 37
 <211> 39
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> artificially synthesized sequence of novel exendin agonist compound

 <220>
 <223> xaa in positions 31, 36, 37 and 38 stands for n-methylalanine.

 <220>
 <221> AMIDATION
 <222> (39)...(39)
 <223> amidated Ser (Serinamide)

 <400> 37

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Xaa	Ser
			20					25					30		
Ser	Gly	Ala	Xaa	Xaa	Xaa	Xaa	Ser								
		35													

<210> 38
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <223> Xaa in positions 36, 37 and 38 stands for n-methylalanine.

<220>
 <221> AMIDATION
 <222> (39)...(39)
 <223> amidated Ser (Serinamide)

<400> 38

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser
			20					25					30		
Ser	Gly	Ala	Xaa	Xaa	Xaa	Ser									
		35													

<210> 39
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <223> Xaa in positions 31, 36, 37 and 38 stands for n-methylalanine.

<220>
 <221> AMIDATION
 <222> (39)...(39)
 <223> amidated Ser (Serinamide)

<400> 39

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Xaa	Ser
			20					25					30		
Ser	Gly	Ala	Xaa	Xaa	Xaa	Ser									
		35													

<210> 40

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<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 40

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 41
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 41

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 42
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 42

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His Ala Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 43
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist
compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 43

His Gly Glu Gly Ala Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 44
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist
compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 44

His Gly Glu Gly Thr Ala Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 45
<211> 28
<212> PRT
<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 45

His Gly Glu Gly Thr Phe Thr Ala Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 46

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 46

His Gly Glu Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 47

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 47

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ala Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 48
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 48

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Ala Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 49
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 49

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Ala Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 50
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 50

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Ala Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 51
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 51

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Ala Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 52
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 52

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Ala
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 53

<211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 53

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Ala Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 54
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 54

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Ala Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 55
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 55

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu

1 5 10 15
 Glu Ala Val Ala Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 56
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 56

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Ala Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 57
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 57

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Ala Phe Leu Lys Asn
 20 25

<210> 58
 <211> 28
 <212> PRT
 <213> Artificial Sequence

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<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 58

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Ala Leu Lys Asn
20 25

<210> 59
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 59

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Ala Lys Asn
20 25

<210> 60
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 60

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Ala Asn
20 25

20

<210> 61
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Ala (Alaninamide)

<400> 61

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Ala				
			20					25							

<210> 62
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (38)...(38)
<223> amidated Pro (Prolinamide)

<400> 62

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser
			20					25					30		
Ser	Gly	Ala	Pro	Pro	Pro										
			35												

<210> 63
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (38)...(38)
 <223> amidated Pro-(Prolinamide)

<400> 63

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro
 35

<210> 64
 <211> 37
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (37)...(37)
 <223> amidated Pro (Prolinamide)

<400> 64

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro
 35

<210> 65
 <211> 37
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (37)...(37)
 <223> amidated Pro (Prolinamide)

<400> 65

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro
 35

<210> 66
 <211> 36
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (36)...(36)
 <223> amidated Pro (Prolinamide)

<400> 66

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro
 35

<210> 67
 <211> 36
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (36)...(36)
 <223> amidated Pro (Prolinamide)

<400> 67

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro
 35

<210> 68
 <211> 35
 <212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (35)...(35)

<223> amidated Ala (Alaninamide)

<400> 68

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala
35

<210> 69

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (35)...(35)

<223> amidated Ala (Alaninamide)

<400> 69

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala
35

<210> 70

<211> 34

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (34)...(34)

<223> amidated Gly (Glycinamide)

<400> 70

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly

<210> 71

<211> 34

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (34)...(34)

<223> amidated Gly (Glycinamide)

<400> 71

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly

<210> 72

<211> 33

<212> PRT

<213> Artificial Sequence

<220>

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<220>

<221> AMIDATION

<222> (33)...(33)

<223> amidated Ser (Serinamide)

<400> 72

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser

<210> 73

<211> 33
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (33)...(33)
 <223> amidated Ser (Serinamide)

<400> 73

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser

<210> 74
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (32)...(32)
 <223> amidated Ser (Serinamide)

<400> 74

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30

<210> 75
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
 <221> AMIDATION
 <222> (32)...(32)

<223> amidated Ser (Serinamide)

<400> 75

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His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1           5           10           15
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
          20           25           30

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<210> 76

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (31)...(31)

<223> amidated Pro (Prolinamide)

<400> 76

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His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1           5           10           15
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro
          20           25           30

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<210> 77

<211> 31

<212> PRT

<213> Artificial Sequence

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<220>

<221> AMIDATION

<222> (31)...(31)

<223> amidated Pro (Prolinamide)

<400> 77

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His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1           5           10           15
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro
          20           25           30

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<210> 78

<211> 30

<212> PRT

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<220>

<221> AMIDATION

<222> (30)...(30)

<223> amidated Gly (Glycinamide)

<400> 78

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly
20 25 30

<210> 79

<211> 29

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<220>

<221> AMIDATION

<222> (29)...(29)

<223> amidated Gly (Glycinamide)

<400> 79

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly
20 25

<210> 80

<211> 29

<212> PRT

<213> Artificial Sequence

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<220>

<221> AMIDATION

<222> (29)...(29)

<223> amidated Gly (Glycinamide)

<400> 80

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly
20 25

<210> 81
<211> 38
<212> PRT
<213> Artificial Sequence

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<220>
<223> Xaa in positions 31, 36, 37 and 38 stand for thioproline.

<220>
<221> AMIDATION
<222> (38)...(38)
<223> amidated tPro (thioprolinamide)

<400> 81

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser
20 25 30

Ser Gly Ala Xaa Xaa Xaa
35

<210> 82
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<223> Xaa in positions 36, 37 and 38 stand for thioproline.

<220>
<221> AMIDATION
<222> (38)...(38)
<223> amidated tPro (thioprolinamide)

<400> 82

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Xaa Xaa Xaa

35

<210> 83
 <211> 37
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
 <223> Xaa in position 31 stands for n-methylalanine.

<220>
 <221> AMIDATION
 <222> (37)...(37)
 <223> amidated Pro (Prolinamide)

<400> 83

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Xaa	Ser
			20					25					30		
Ser	Gly	Ala	Pro	Pro											
		35													

<210> 84
 <211> 37
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
 <223> Xaa in positions 31, 36 and 37 stands for n-methylalanine.

<220>
 <221> AMIDATION
 <222> (37)...(37)
 <223> amidated Nmeala (n-methylalaninamide)

<400> 84

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Xaa	Ser
			20					25					30		

Ser Gly Ala Xaa Xaa
35

<210> 85
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<223> Xaa in positions 31, 36 and 37 stands for homoproline.

<220>
<221> AMIDATION
<222> (37)...(37)
<223> amidated hPro (homoprolinamide)

<400> 85

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser
20 25 30

Ser Gly Ala Xaa Xaa
35

<210> 86
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<223> xaa in positions 31 and 36 stands for homoproline.

<220>
<221> AMIDATION
<222> (36)...(36)
<223> amidated hPro (homoprolinamide)

<400> 86

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser
20 25 30

Ser Gly Ala Xaa

35

<210> 87
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (35)...(35)
 <223> amidated Ala (Alaninamide)

<400> 87

Arg	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser
			20					25					30		
Ser	Gly	Ala													
		35													

<210> 88
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (30)...(30)
 <223> amidated Gly (Glycinamide)

<400> 88

His	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly		
			20					25					30		

<210> 89
 <211> 28
 <212> PRT
 <213> Artificial Sequence

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<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<223> xaa in position 6 stands for naphthylalanine.

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 89

His Gly Glu Gly Thr Xaa Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 90
<211> 28
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<220>
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<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 90

His Gly Glu Gly Thr Phe Ser Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 91
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<212> PRT
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<220>
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<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 91

His Gly Glu Gly Thr Phe Ser Thr Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 92
 <211> 28
 <212> PRT
 <213> Artificial Sequence

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<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 92

His Gly Glu Gly Thr Phe Thr Ser Glu Leu Ser Lys Gln Met Ala Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 93
 <211> 28
 <212> PRT
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<220>
 <223> Xaa in position 10 stands for pentylglycine.

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 93

His Gly Glu Gly Thr Phe Thr Ser Asp Xaa Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

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<210> 94
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<220>
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<220>
<223> Xaa in position 22 stands for naphthylalanine.

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 94

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15
Glu Ala Val Arg Leu Xaa Ile Glu Phe Leu Lys Asn
20 25

<210> 95
<211> 28
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<213> Artificial Sequence

<220>
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<220>
<223> Xaa in position 23 stands for tertiary-butylglycine.

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 95

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15
Glu Ala Val Arg Leu Phe Xaa Glu Trp Leu Lys Asn
20 25

<210> 96
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist
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compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 96

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Asp Phe Leu Lys Asn
 20 25

<210> 97
 <211> 33
 <212> PRT
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<220>
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 compound

<220>
 <221> AMIDATION
 <222> (33)...(33)
 <223> amidated Ser (Serinamide)

<400> 97

His Gly Glu Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser

<210> 98
 <211> 29
 <212> PRT
 <213> Artificial Sequence

<220>
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 compound

<220>
 <221> AMIDATION
 <222> (29)...(29)
 <223> amidated Gly (Glycinamide)

<400> 98

His Gly Glu Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly
20 25

<210> 99
<211> 37
<212> PRT
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<220>
<223> xaa in positions 31, 36 and 37 stands for homoproline.

<220>
<221> AMIDATION
<222> (37)...(37)
<223> amidated hPro (homoprolinamide)

<400> 99

His Gly Glu Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser
20 25 30

Ser Gly Ala Xaa Xaa
35

<210> 100
<211> 28
<212> PRT
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<220>
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<223> amidated Asn (Asparaginamide)

<400> 100

Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 101
<211> 28
<212> PRT
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<220>
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<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 101

His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 102
<211> 28
<212> PRT
<213> Artificial Sequence

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<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 102

His Gly Glu Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 103
<211> 28
<212> PRT
<213> Artificial Sequence

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<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 103

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His Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 104
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 104

Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 105
<211> 28
<212> PRT
<213> Artificial Sequence

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<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 105

His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 106
<211> 28
<212> PRT
<213> Artificial Sequence

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<220>
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<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 106

His Gly Glu Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 107
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 107

His Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 108
<211> 28
<212> PRT
<213> Artificial Sequence

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<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 108

His Gly Glu Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 109
<211> 28
<212> PRT
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<223> artificially synthesized sequence of novel exendin agonist
compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 109

Ala Ala Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 110
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compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 110

Ala Ala Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 111
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<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 111

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 112
<211> 28
<212> PRT
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<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 112

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 113
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<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 113

Ala Gly Asp Gly Ala Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 114
 <211> 28
 <212> PRT
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<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 114

Ala Gly Asp Gly Ala Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 115
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
 <223> xaa in position 6 stands for naphthylalanine.

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 115

Ala Gly Asp Gly Thr xaa Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 116
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Xaa in position 6 stands for naphthylalanine.

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 116

Ala Gly Asp Gly Thr Xaa Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 117
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 117

Ala Gly Asp Gly Thr Phe Ser Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 118
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist
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compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 118

Ala Gly Asp Gly Thr Phe Ser Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 119
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist
 compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 119

Ala Gly Asp Gly Thr Phe Thr Ala Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 120
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist
 compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 120

Ala Gly Asp Gly Thr Phe Thr Ala Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 121
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 121

Ala Gly Asp Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 122
<211> 28
<212> PRT
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<220>
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<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 122

Ala Gly Asp Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 123
<211> 28
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<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 123

Ala Gly Asp Gly Thr Phe Thr Ser Glu Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 124
<211> 28
<212> PRT
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<220>
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<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 124

Ala Gly Asp Gly Thr Phe Thr Ser Glu Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 125
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 125

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Ala Gly Asp Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 126
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 126

Ala Gly Asp Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 127
<211> 28
<212> PRT
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<220>
<223> Xaa in position 10 stands for pentylglycine.

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 127

Ala Gly Asp Gly Thr Phe Thr Ser Asp Xaa Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 128
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <223> Xaa in position 10 stands for pentyglycine.

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 128

Ala Gly Asp Gly Thr Phe Thr Ser Asp Xaa Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 129
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 129

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ala Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 130
 <211> 28
 <212> PRT
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<220>
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<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 130

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ala Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 131
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 131

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Ala Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 132
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 132

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Ala Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 133
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 133

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Ala Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 134
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 134

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Ala Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 135
 <211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 135

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Ala	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn				
			20				25								

<210> 136

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 136

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Ala	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn				
			20				25								

<210> 137

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

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<220>

<223> xaa in position 14 stands for pentylglycine.

<220>

<221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 137

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Xaa Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 138
 <211> 28
 <212> PRT
 <213> Artificial Sequence

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<220>
 <223> Xaa in position 14 stands for pentylglycine.

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 138

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Xaa Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 139
 <211> 28
 <212> PRT
 <213> Artificial sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 139

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Ala Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 140
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 140

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Ala	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn				
			20					25							

<210> 141
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 141

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Ala
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn				
			20					25							

<210> 142
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 142

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Ala
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 143
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 143

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Ala Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 144
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 144

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Ala Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 145
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 145

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Ala Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 146
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 146

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Ala Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 147
<211> 28
<212> PRT
<213> Artificial Sequence

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<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 147

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Ala Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 148
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 148

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Ala Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 149
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 149

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Ala Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 150
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 150

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Ala Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 151
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <223> Xaa in position 22 stands for naphthylalanine.

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 151

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Xaa Ile Glu Trp Leu Lys Asn
 20 25

<210> 152

<211> 28

<212> PRT

<213> Artificial sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<223> xaa in position 22 stands for naphthylalanine.

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 152

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu
1				5					10					15	

Glu	Ala	Val	Arg	Leu	Xaa	Ile	Glu	Phe	Leu	Lys	Asn
			20					25			

<210> 153

<211> 28

<212> PRT

<213> Artificial sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 153

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	

Glu	Ala	Val	Arg	Leu	Phe	Val	Glu	Trp	Leu	Lys	Asn
			20					25			

<210> 154

<211> 28

<212> PRT

<213> Artificial sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 154

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu
1				5					10					15	

Glu	Ala	Val	Arg	Leu	Phe	Val	Glu	Phe	Leu	Lys	Asn
			20					25			

<210> 155

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<223> xaa in position 23 stands for tertiary-butylglycine.

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 155

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	

Glu	Ala	Val	Arg	Leu	Phe	Xaa	Glu	Trp	Leu	Lys	Asn
			20					25			

<210> 156

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<223> xaa in position 23 stands for tertiary-butylglycine.

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 156

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu
1				5					10					15	

Glu Ala Val Arg Leu Phe Xaa Glu Phe Leu Lys Asn
 20 25

<210> 157
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 157

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Asp Trp Leu Lys Asn
 20 25

<210> 158
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 158

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Asp Phe Leu Lys Asn
 20 25

<210> 159
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 159

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Ala	Leu	Lys	Asn				
			20					25							

<210> 160
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 160

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Ala	Leu	Lys	Asn				
			20					25							

<210> 161
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (28)...(28)
 <223> amidated Asn (Asparaginamide)

<400> 161

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	

Glu Ala Val Arg Leu Phe Ile Glu Trp Ala Lys Asn
20 25

<210> 162
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 162

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Ala Lys Asn
20 25

<210> 163
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (28)...(28)
<223> amidated Asn (Asparaginamide)

<400> 163

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Ala Asn
20 25

<210> 164
<211> 28
<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 164

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Phe	Leu	Ala	Asn				
			20					25							

<210> 165

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Ala (Alaninamide)

<400> 165

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Ala				
			20					25							

<210> 166

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Ala (Alaninamide)

<400> 166

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Ala
 20 25

<210> 167

<211> 38

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (38)...(38)

<223> amidated Pro (Prolinamide)

<400> 167

Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro
 35

<210> 168

<211> 38

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (38)...(38)

<223> amidated Pro (Prolinamide)

<400> 168

His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro
 35

<210> 169
 <211> 37
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (37)...(37)
 <223> amidated Pro (Prolinamide)

<400> 169

His Gly Glu Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro
 35

<210> 170
 <211> 36
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (36)...(36)
 <223> amidated Pro (Prolinamide)

<400> 170

His Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro
 35

<210> 171
 <211> 36
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (36)...(36)
 <223> amidated Pro (Prolinamide)

<400> 171

Ala Gly Glu Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro
 35

<210> 172
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (35)...(35)
 <223> amidated Ala (Alaninamide)

<400> 172

Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala
 35

<210> 173
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (35)...(35)
 <223> amidated Ala (Alaninamide)

<400> 173

His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
 Page 79

20

Ser Gly Ala
35

<210> 174
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<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (34)...(34)
<223> amidated Gly (Glycinamide)

<400> 174

His Gly Glu Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly

<210> 175
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<221> AMIDATION
<222> (33)...(33)
<223> amidated Ser (Serinamide)

<400> 175

His Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser

<210> 176
<211> 32
<212> PRT
<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (32)...(32)

<223> amidated Ser (Serinamide)

<400> 176

Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

<210> 177

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (32)...(32)

<223> amidated Ser (Serinamide)

<400> 177

His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
20 25 30

<210> 178

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (31)...(31)

<223> amidated Pro (Prolinamide)

<400> 178

His Gly Glu Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
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1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro
 20 25 30

<210> 179
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (30)...(30)
 <223> amidated Gly (Glycinamide)

<400> 179

His Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly
 20 25 30

<210> 180
 <211> 29
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (29)...(29)
 <223> amidated Gly (Glycinamide)

<400> 180

Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly
 20 25

<210> 181
 <211> 38
 <212> PRT
 <213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<223> Xaa in positions 31, 36, 37 and 38 stand for thioproline.

<220>
<221> AMIDATION
<222> (38)...(38)
<223> amidated tPro (thioprolinamide)

<400> 181

His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser
20 25 30
Ser Gly Ala Xaa Xaa Xaa
35

<210> 182
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<223> Xaa in positions 36, 37 and 38 stand for thioproline.

<220>
<221> AMIDATION
<222> (38)...(38)
<223> amidated tPro (thioprolinamide)

<400> 182

His Gly Glu Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30
Ser Gly Ala Xaa Xaa Xaa
35

<210> 183
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<223> Xaa in positions 31, 36 and 37 stands for n-methylalanine.

<220>
<221> AMIDATION
<222> (37)...(37)
<223> amidated Nmeala (n-methylalaninamide)

<400> 183

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Ala	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Xaa	Ser
			20					25					30		
Ser	Gly	Ala	Xaa	Xaa											
		35													

<210> 184
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
<223> Xaa in positions 31 and 36 stands for homoproline.

<220>
<221> AMIDATION
<222> (36)...(36)
<223> amidated hPro (homoprolinamide)

<400> 184

Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Xaa	Ser
			20					25					30		
Ser	Gly	Ala	Xaa												
		35													

<210> 185
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (35)...(35)
 <223> amidated Ala (Alaninamide)

<400> 185

His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala
 35

<210> 186
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (30)...(30)
 <223> amidated Gly (Glycinamide)

<400> 186

His Gly Asp Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly
 20 25 30

<210> 187
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>
 <221> AMIDATION
 <222> (39)...(39)
 <223> amidated Ser (Serinamide)

<400> 187

Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
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1 5 15
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30
Ser Gly Ala Pro Pro Pro Ser
35

<210> 188
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist
compound

<220>
<221> AMIDATION
<222> (39)...(39)
<223> amidated Ser (Serinamide)

<400> 188

Ala Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
20 25 30
Ser Gly Ala Pro Pro Pro Ser
35